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ABSTRACT

Compilation of data on the unemployment and employment of artists on a base comparable with the data for the total U.S. population is presented. Tables present the main body of information about employment and unemployment. A brief summary of highlights is also included. Material presented is technical and intended for persons who are specially concerned about the reliability of the data and its use for trend projection. The period covered is from 1970 through 1975. Breakdown is for males and females, and for architects, actors, authors, dancers, designers, musicians and composers, painters and sculptors, and photographers. (KE)

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Employment and Unemployment of Artists: 1970-1975

National Endowment
for the Arts



April 1976

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Introduction

The employment of persons in artistic occupations and the complementary number of unemployed in artistic occupations are the subjects of this report. Information about unemployment is always more urgent since it is a measure of a serious deficiency. However, the two subjects cannot be isolated from each other since they are based on the same data. The relationship has been described as that of the doughnut and the hole.^{1/}

Compilation of data on the unemployment and employment of artists on a base comparable with the data for the total U. S. population is possible because of the work of the Bureau of the Census and the Bureau of Labor Statistics. The data used in this report for 1970 is from the 1970 Census of Population. The data for subsequent years is from annualized monthly averages from the monthly Current Population Studies conducted for the Bureau of Labor Statistics by the Bureau of the Census. The Bureau of

^{1/} Shiskin, Julius, Commissioner of Labor Statistics, "Employment and Unemployment: The Doughnut or the Hole?" Monthly Labor Review, February 1976, p. 3.

Labor Statistics has released to the National Endowment for the Arts detailed data on artistic occupations for 1971 - 1975 that has not been made available through its regular publications.

The style adopted for this report uses tables to present the main body of information about employment and unemployment. Tables 1 - 3, and Figure 1, are a summary data presentation in simple form. The following Tables 4 - 9 are very detailed and provide data that should be helpful to readers interested in the statistical basis for the percent unemployment that is reported. The text is a brief summary of highlights from the tables. Three Appendices with several tables and a figure complete the report. This final material is very technical and is intended for persons who are specially concerned about the reliability of the data and its use for trend projection as well as needs for additional research.

In reading the report, the differences in the data source for 1970 and 1971 - 1975 should be remembered. The statistical reliability of the data for the latter years is much less because of the differences in sample size. "Standard Errors" are shown in Tables 3 - 9. The use of this measure for data reliability is discussed in the appendices.

Summary of Employment
and Unemployment Changes From 1974 to 1975

The most striking observation from the examination of employment and unemployment data for the artistic occupations is the increase in the total work force that has occurred in recent years. In 1975, the employment of artists continued to increase and the total experienced Writers, Artists, and Entertainers labor force grew at a rate of 5.5%. Changes in unemployment followed the general trend of the U. S. population and was substantially greater in 1975 than in 1974. Table 1 summarizes the percent unemployment for selected artistic occupations in 1974 and 1975. The percent unemployment increased for most of the selected occupations and was substantially greater than for all Professional, Technical, and Kindred Workers. The increase or decrease in the percent unemployment for these two years should be interpreted carefully in the light of the Standard Errors shown in Tables 8 and 9 and Appendix II on Employment and Unemployment Trends. Table 2 compares percent unemployment for Writers, Artists, and Entertainers with that of all Professional, Technical, and Kindred Workers for the period 1970 - 1975.

TABLE 1

COMPARISON OF UNEMPLOYMENT FOR SELECTED
OCCUPATIONS WITH ALL PROFESSIONAL,
TECHNICAL AND KINDRED WORKERS: 1974 and 1975

	<u>1974</u>	<u>1975</u>	<u>Change</u> ^{1/}
All Professional, Technical & Kindred Workers	2.3%	3.2%	+ .9%
Architects	2.7%	5.4%	+2.7%
Actors	47.4%	35.0%	-12.4%
Authors	2.1%	4.3%	+2.2%
Dancers	*	*	*
Designers	2.3%	7.4%	+5.1%
Musicians & Composers	4.1%	7.9%	+3.8%
Painters & Sculptors	3.2%	5.8%	+2.6%
Photographers	3.8%	6.2%	+2.4%

* Data base is too small to provide a meaningful estimate.

^{1/} See Appendix II and Standard Errors in Tables 8 and 9.

Source: See Tables 8 and 9 for data source.

TABLE 2

COMPARISON OF UNEMPLOYMENT FOR WRITERS,
ARTISTS AND ENTERTAINERS WITH ALL PROFESSIONAL,
TECHNICAL AND KINDRED WORKERS: 1970 - 1975

	<u>% Unemployment Writers, Artists & Entertainers</u>	<u>% Unemployment All Professional, Technical and Kindred Workers</u>
1970 <u>1/</u>	4.6%	1.8%
1971 <u>2/</u>	7.1%	2.9%
1972 <u>2/</u>	5.6%	2.4%
1973 <u>2/</u>	4.8%	2.2%
1974 <u>2/</u>	4.8%	2.3%
1975 <u>2/</u>	7.4%	3.2%

1/ Table 51, U.S. Bureau of the Census, Census of Population: 1970 Subject Reports, Final Report PC(2)-7A, Occupational Characteristics.

2/ Unpublished data furnished by the Bureau of Labor Statistics.

How Many Artists?

In the 1970 Census, the total of Writers, Artists, and Entertainers in the labor force was 797,574 persons. The Bureau of Labor Statistics data for 1975 is 1,055,000 persons in the same group. The increase reflects a compounded annual growth rate for the 5 year period of 5.7%. At this rate of growth, the labor force of artists would double in a period of about 12.5 years. Data on the growth of the artistic occupations labor force for the 1970 - 1975 period is presented in Table 3. Figure 1 illustrates graphically the rise in this labor force during the period and the changes in the subgroups of the unemployed and employed.

Unemployment of Artists

For 1975, the percent unemployment of all Professional, Technical, and Kindred Workers is 3.2%. This compares with 7.4% for the Writers, Artists, and Entertainers occupational group. Among the selected artistic occupations in 1975, the following unemployment rates are reported:

Architects -- 5.4%, Actors -- 35.0%, Authors -- 4.3%,
Designers -- 7.4%, Musicians and Composers -- 7.9%,
Dancers -- (inadequate data), Painters and Sculptors -- 5.8%, and Photographers -- 6.2%.

TABLE 3

TOTAL WRITERS, ARTISTS AND ENTERTAINERS,
GROWTH OF LABOR FORCE AND UNEMPLOYMENT: 1970 - 1975

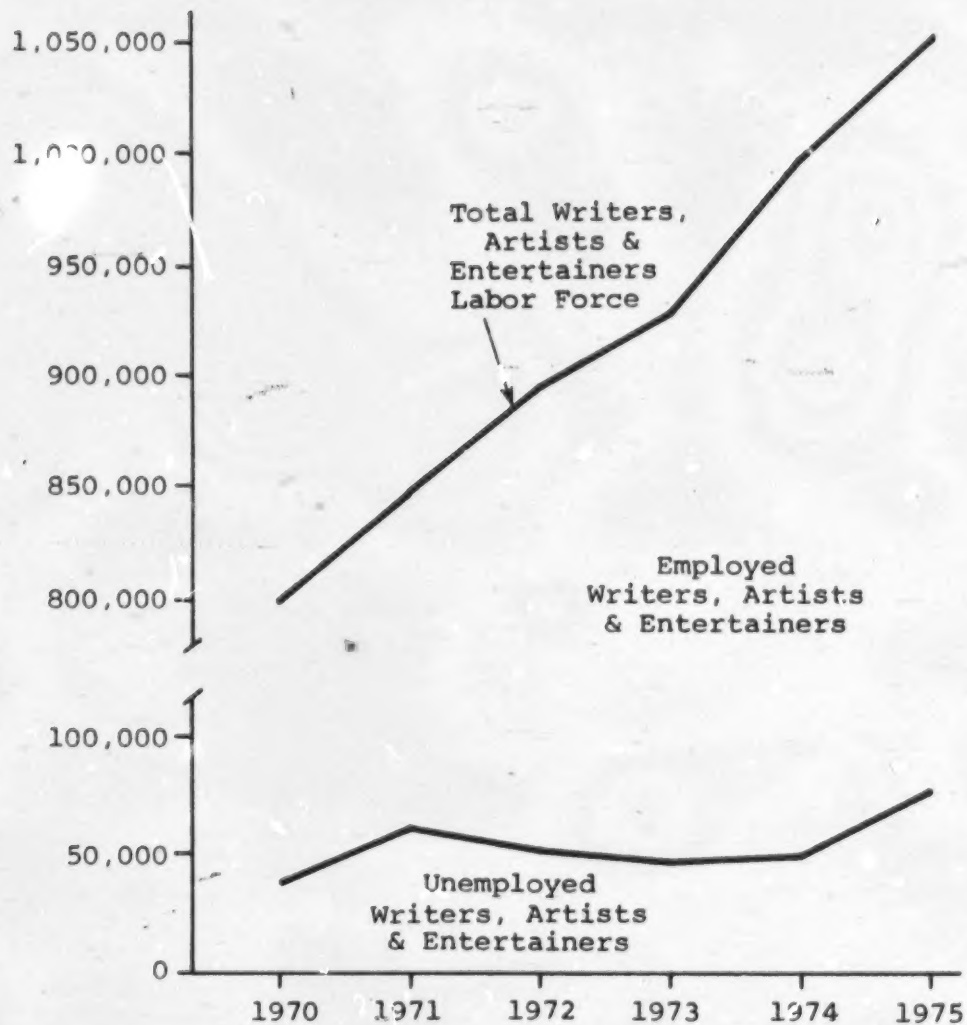
<u>Year</u>	<u>Total</u>	<u>Growth Rate From Previous Year</u>	<u>Number Unem- ployed</u>	<u>% Unem- ployed</u>	<u>Standard Error of % Unem- ployment</u>
1970 ^{1/}	797,574	-	36,480	4.6%	.1%
1971 ^{2/}	846,000	6.1%	60,000	7.1%	.5%
1972 ^{2/}	897,000	6.0%	50,000	5.6%	.4%
1973 ^{2/}	929,000	3.6%	45,000	4.8%	.4%
1974 ^{2/}	1,000,000	7.6%	48,000	4.8%	.4%
1975 ^{2/}	1,055,000	5.5%	78,000	7.4%	.5%

^{1/} Table 51, U.S. Bureau of the Census, Census of Population: 1970 Subject Reports, Final Report PC(2)-7A, Occupational Characteristics.

^{2/} Unpublished data furnished by the Bureau of Labor Statistics

FIGURE 1

TOTAL WRITERS, ARTISTS AND ENTERTAINERS LABOR
FORCE, EMPLOYED AND UNEMPLOYED: 1970 - 1975



Source: Table 3

Unemployment of Writers, Artists, and Entertainers as a broad occupational group was 4.6% in 1970. In the five years since 1970, the percent of unemployment of Writers, Artists, and Entertainers fluctuated annually and roughly followed the trend in unemployment of all Professional, Technical, and Kindred Workers but at a rate 2 to 2½ times greater.

Tables 4 - 9 present a detailed analysis of the total experienced labor force for selected artistic occupations, the number and percent unemployed, and Standard Errors of the percent unemployed statistics. This data is provided for Architects, Actors, Authors, Dancers, Designers, Musicians and Composers, Painters and Sculptors, and Photographers, for both sexes combined and separately. Similar statistics are provided in these tables for the larger group of all Professional, Technical, and Kindred Workers for comparison. Separate tables are provided for each year from 1970 to 1975.

As a result of the difference in the basis for the 1970 Census and the annualized averages from the Current Population Studies data for the subsequent years, standard Errors of percent unemployment are fairly large for some of the occupations in 1971 - 1975. Users of

this report are cautioned against plotting an unemployment trend line with the data for individual artistic occupations reported in Tables 4 - 9 before considering the information in Appendix II, Employment and Unemployment trends.

A very significant observation from the examination of the tables for the six years is the very great difference in unemployment in the artistic occupations. Unemployment is most severe among Actors ranging from a high percentage of 47.4% recorded in both 1971 and 1974 to a low of 33.4% recorded in 1970. The percent unemployment of Actors in 1975 is 35%, close to the low of 33.4% in 1970, and contrasts with unemployment among the other artistic occupations as the only one in which there was a decrease in 1975. As the Standard Errors of percent unemployment of Actors are fairly high, caution should be taken in making trend comparisons.

Dancers are second in percent unemployment ranging from a low of 14.5% in 1970 to a high of 30% in 1971. The data on unemployment of Dancers is considered unreliable except for the Census Year 1970 and comparisons with other occupations should be limited to that year. This is because of

the relatively small number of Dancers and the difficulty of obtaining satisfactory data for this occupational group in the sample used for the monthly Current Population Studies.

In contrast to Actors and Dancers, the other selected artistic occupations in Tables 4 - 9 are represented by a sufficiently large number of persons in the labor force so that the data on percent unemployment is more useful.

TABLE 4

TOTAL LABOR FORCE AND UNEMPLOYMENT FOR
SELECTED ARTISTIC OCCUPATIONS AND SEX: 1970

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
<u>All Professional, Tech- nical & Kindred Workers</u>	<u>11,667.0</u>	<u>215.1</u>	<u>1.8%</u>	<u>.1%</u>
Male	6,992.3	116.4	1.7%	.1%
Female	4,674.7	98.7	2.1%	.1%
<u>Architects</u>	<u>57.1</u>	<u>0.8</u>	<u>1.4%</u>	<u>.4%</u>
Male	54.9	.7	1.3%	.4%
Female	2.1	.04	2.0%	1.7%
<u>Actors</u>	<u>14.1</u>	<u>4.7</u>	<u>33.4%</u>	<u>2.2%</u>
Male	8.2	2.6	32.2%	2.9%
Female	5.9	2.1	35.0%	3.4%
<u>Authors</u>	<u>26.0</u>	<u>1.1</u>	<u>4.1%</u>	<u>.6%</u>
Male	18.1	.7	4.1%	.8%
Female	7.9	.4	4.1%	1.2%
<u>Dancers</u>	<u>6.9</u>	<u>1.0</u>	<u>14.5%</u>	<u>2.2%</u>
Male	1.3	.3	20.9%	5.5%
Female	5.7	.8	13.3%	2.3%
<u>Designers</u>	<u>112.3</u>	<u>3.5</u>	<u>3.1%</u>	<u>.2%</u>
Male	85.2	2.0	2.4%	.3%
Female	27.1	1.5	5.5%	.7%
<u>Musicians & Composers</u>	<u>96.5</u>	<u>6.5</u>	<u>6.7%</u>	<u>.3%</u>
Male	63.7	5.1	8.0%	.7%
Female	32.9	1.4	4.1%	.7%
<u>Painters & Sculptors</u>	<u>107.5</u>	<u>4.1</u>	<u>3.8%</u>	<u>.2%</u>
Male	67.9	2.0	2.9%	.3%
Female	39.6	2.1	5.3%	.6%
<u>Photographers</u>	<u>66.0</u>	<u>2.0</u>	<u>3.0%</u>	<u>.3%</u>
Male	56.5	1.4	2.4%	.4%
Female	9.4	.6	6.7%	1.1%

Source: Table 51, U.S. Bureau of the Census, Census of Population: 1970 Subject Reports, Final Report PC(2)-7A, Occupational Characteristics.

TABLE 5

TOTAL LABOR FORCE AND UNEMPLOYMENT FOR
SELECTED ARTISTIC OCCUPATIONS AND SEX: 1971

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
<u>All Professional, Tech- nical & Kindred Workers</u>	11,416	331	2.9%	.1%
Male	6,933	188	2.7%	.1%
Female	4,483	143	3.2%	.1%
<u>Architects</u>	70	1	1.4%	.8%
Male	67	1	1.5%	.8%
Female	3	0	*	-
<u>Actors</u>	19	9	47.4%	7.7%
Male	11	4	36.4%	9.1%
Female	8	5	*	-
<u>Authors</u>	33	2	6.1%	2.5%
Male	21	1	4.8%	2.8%
Female	12	1	8.3%	4.6%
<u>Dancers</u>	10	3	30.0%	8.7%
Male	1	1	*	-
Female	9	2	*	-
<u>Designers</u>	106	7	6.6%	1.4%
Male	78	4	5.1%	1.4%
Female	28	3	10.7%	3.5%
<u>Musicians & Composers</u>	126	10	7.9%	1.5%
Male	82	8	9.8%	1.9%
Female	45	2	4.4%	1.9%
<u>Painters & Sculptors</u>	130	5	3.8%	0%
Male	82	2	2.4%	1.0%
Female	48	3	6.3%	2.0%
<u>Photographers</u>	81	4	4.9%	1.3%
Male	67	2	3.0%	1.2%
Female	13	1	7.7%	4.5%

* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

TABLE 6

TOTAL LABOR FORCE AND UNEMPLOYMENT FOR
SELECTED ARTISTIC OCCUPATIONS AND SEX: 1972

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
<u>All Professional, Tech- nical & Kindred Workers</u>	<u>11,741</u>	<u>282</u>	<u>2.4%</u>	<u>.1%</u>
Male	7,110	153	2.2%	.1%
Female	4,631	129	2.8%	.1%
<u>Architects</u>	<u>68</u>	<u>2</u>	<u>2.9%</u>	<u>1.1%</u>
Male	66	2	3.0%	1.2%
Female	2	0	*	-
<u>Actors</u>	<u>18</u>	<u>8</u>	<u>44.4%</u>	<u>8.1%</u>
Male	13	5	38.5%	8.7%
Female	5	3	*	-
<u>Authors</u>	<u>31</u>	<u>1</u>	<u>3.2%</u>	<u>1.9%</u>
Male	18	1	5.6%	3.4%
Female	13	0	*	-
<u>Dancers</u>	<u>6</u>	<u>1</u>	<u>*</u>	<u>-</u>
Male	1	0	*	-
Female	5	1	*	-
<u>Designers</u>	<u>113</u>	<u>3</u>	<u>2.7%</u>	<u>.9%</u>
Male	91	2	2.2%	.9%
Female	21	1	4.8%	2.9%
<u>Musicians & Composers</u>	<u>130</u>	<u>9</u>	<u>6.9%</u>	<u>1.3%</u>
Male	92	8	8.7%	1.8%
Female	39	1	2.6%	1.4%
<u>Painters & Sculptors</u>	<u>137</u>	<u>8</u>	<u>5.8%</u>	<u>1.3%</u>
Male	78	4	5.1%	1.4%
Female	60	4	6.7%	1.9%
<u>Photographers</u>	<u>80</u>	<u>3</u>	<u>3.8%</u>	<u>1.2%</u>
Male	67	2	3.0%	1.2%
Female	13	1	7.7%	4.5%

* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

TABLE 7

TOTAL LABOR FORCE AND UNEMPLOYMENT FOR
SELECTED ARTISTIC OCCUPATIONS AND SEX: 1973

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
<u>All Professional, Tech- nical & Kindred Workers</u>	12,037	260	2.2%	.1%
Male	7,186	120	1.7%	.1%
Female	4,852	141	2.9%	.1%
<u>Architects</u>	74	1	1.4%	.8%
Male	72	1	1.4%	.8%
Female	2	0	*	-
<u>Actors</u>	16	7	43.8%	8.3%
Male	7	3	*	-
Female	8	4	*	-
<u>Authors</u>	39	1	2.6%	1.5%
Male	18	0	*	-
Female	20	0	*	-
<u>Dancers</u>	10	2	20.0%	7.5%
Male	3	1	*	-
Female	7	1	*	-
<u>Designers</u>	125	2	1.6%	.7%
Male	98	1	1.0%	.6%
Female	27	1	3.7%	2.1%
<u>Musicians & Composers</u>	129	9	7.0%	1.3%
Male	88	6	6.8%	1.6%
Female	41	3	7.3%	2.2%
<u>Painters & Sculptors</u>	141	5	3.5%	.9%
Male	80	3	3.8%	1.2%
Female	60	2	3.3%	1.3%
<u>Photographers</u>	76	1	1.3%	.7%
Male	63	1	1.6%	.9%
Female	13	0	*	-

* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

TABLE 8

TOTAL LABOR FORCE AND UNEMPLOYMENT FOR
SELECTED ARTISTIC OCCUPATIONS AND SEX: 1974

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
<u>All Professional, Tech- nical & Kindred Workers</u>	12,623	285	2.3%	.1%
Male	7,482	136	1.8%	.1%
Female	5,142	150	2.9%	.1%
<u>Architects</u>	73	2	2.7%	1.0%
Male	71	2	2.8%	1.1%
Female	2	0	*	-
<u>Actors</u>	19	9	47.4%	7.2%
Male	11	5	45.4%	9.7%
Female	8	4	*	-
<u>Authors</u>	47	1	2.1%	1.2%
Male	27	1	3.7%	2.1%
Female	21	1	4.8%	2.8%
<u>Dancers</u>	7	2	*	-
Male	1	0	*	-
Female	5	1	*	-
<u>Designers</u>	132	3	2.3%	.8%
Male	99	1	1.0%	.6%
Female	33	2	6.1%	2.5%
<u>Musicians & Composers</u>	146	6	4.1%	1.0%
Male	102	4	3.9%	1.1%
Female	44	1	2.3%	1.3%
<u>Painters & Sculptors</u>	154	5	3.2%	.9%
Male	89	2	2.2%	.9%
Female	65	3	4.6%	1.5%
<u>Photographers</u>	79	3	3.8%	1.2%
Male	67	1	1.5%	.9%
Female	13	1	7.7%	4.5%

* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

TABLE 9

TOTAL LABOR FORCE AND UNEMPLOYMENT FOR
SELECTED ARTISTIC OCCUPATIONS AND SEX: 1975

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
<u>All Professional, Tech- nical & Kindred Workers</u>	13,173	425	3.2%	.1%
Male	7,700	219	2.8%	.1%
Female	5,474	207	3.8%	.1%
<u>Architects</u>	74	4	5.4%	1.5%
Male	71	4	5.6%	1.6%
Female	3	0	*	-
<u>Actors</u>	20	7	35.0%	6.9%
Male	13	3	23.1%	7.2%
Female	7	4	*	-
<u>Authors</u>	47	2	4.3%	1.6%
Male	26	0	*	-
Female	20	1	5.0%	3.0%
<u>Dancers</u>	8	2	*	-
Male	3	1	*	-
Female	5	1	*	-
<u>Designers</u>	135	10	7.4%	1.4%
Male	103	9	8.7%	1.6%
Female	34	2	5.9%	2.4%
<u>Musicians & Composers</u>	151	12	7.9%	1.4%
Male	104	9	8.7%	1.7%
Female	47	3	6.4%	2.1%
<u>Painters & Sculptors</u>	155	9	5.8%	1.1%
Male	84	5	5.9%	1.5%
Female	72	4	5.6%	1.6%
<u>Photographers</u>	81	5	6.2%	1.6%
Male	67	4	6.0%	1.7%
Female	14	1	7.1%	4.4%

* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

APPENDICES

I. Data Reliability and the Standard Error

"Standard Error" (S. E.) is a commonly used measure of sampling variability, that is, a measure of the degree of confidence that can be attached to a statistic which is estimated by a sampling method rather than a complete count.

An individual statistic estimated from a sampling procedure will vary from the "true" figure that would have been obtained from a complete count by an unknown amount due to chance. However, if the Standard Error of an estimated number is known, statistical theory permits a specific interpretation of the estimated number's reliability in terms of probabilities. There is approximately a 2 out of 3 chance (68%) that the difference (either plus or minus) between a sample estimate and the true figure is greater than the estimate's standard error. There is about a 95% probability that the difference between the estimate and the true figure is less than twice the Standard Error. For example, (from Table 3), there is approximately a 95% probability that the true percent unemployment of all Writers, Artists, and Entertainers in 1975 was between 6.4% and 8.4% [$7.4\% - 2 (.5)$ to $7.4\% + 2 (.5)$]. About a 5% chance remains that the true value falls outside of this range. This range is sometimes called the "95% confidence range," and is a commonly used benchmark as an indication of data reliability. The Standard Errors shown in this report have been computed using error tables furnished by the Bureau of Labor Statistics.

A further technical note: The basic concept behind the construction of a confidence range in this way requires that the sample size be reasonably large. A substantial number of the unemployment rates given in Tables 5 through 9 are based on very small samples and it is not valid to interpret a confidence range as more than a rough indication of reliability in these cases. For example, in several cases, the lower limit of a 95% confidence range would be less than 0% unemployment, obviously an impossibility. This problem also arises in cases of moderately large samples

but with a very low estimated rate of unemployment. Even in such cases, however, the calculation of a confidence range can provide a still useful, though often very crude, indication of reliability. As noted in the tables, cases marked with an asterisk are based on samples so small that neither the percent unemployed nor a measure of its reliability would be accurate enough to be considered useful. Accordingly, all cases in Tables 5 - 9 with less than 10,000 persons estimated in the total labor force or with zero unemployment are marked by an asterisk in the percent unemployed column.

II. Employment and Unemployment Trends

Some of the data for individual occupations presented in Tables 4 - 9 indicate substantial changes in unemployment from year to year or overall 5 year trends. However, because of the data reliability problem arising from the very small samples in some cases, most such year to year changes and trends cannot be confidently attributed to other than variations that would be expected to occur due to chance errors in estimation. There are statistical testing procedures available to calculate the probability that a particular statistic varies from year to year because the true figure has varied rather than because of chance fluctuation. ^{1/} A number of the noticeable annual fluctuations in unemployment for the individual occupations do not pass these tests, and it is generally suggested that Tables 4 - 9 should not be used to plot trend lines. However, the total Writers, Artists, and Entertainers in Table 3 can be used to plot a trend line because of the improved reliability that results from the aggregation of data. This trend line is plotted in Figure 1.

^{1/} One convenient test uses the Standard Error of the two numbers to be compared (S. E.1 and S. E.2) to compute the Standard Error of the estimated difference between them (S. E.2 - 1). In an identical fashion to the process involving a single statistic, a confidence region can be constructed for the difference between the two estimates. The formula for the standard error of the difference between 2 estimates is:

$$S.E.2 - 1 = \sqrt{(S.E.1)^2 + (S.E.2)^2}$$

where S. E.1 and S. E.2 are the standard errors of the two estimates.

III. Need for Additional Research

A. Seasonality of Employment. Part of the lore of the artistic occupations is seasonality in employment. This is thought to be the greatest for Actors, Musicians, and Dancers. Similarly, Architects' employment lore suggests a broad peak starting at the beginning of the construction season and continuing at a fairly high level until late fall when construction activity tends to diminish. Other artistic occupations such as Painters and Sculptors, Photographers, and Designers are believed to have relatively lower degrees of seasonality in their employment. The data currently available for study is too limited to permit assessment of seasonality. The data obtained in the 1970 Census was based on employment in the week prior to the Census, namely, the last week of March, 1970. This might have been a period of relatively low employment in the year for artists in the performing arts occupations, but was probably a peak period of employment for architects. The available data does not permit the appropriate adjustments to be made. Therefore, the data shown in Table 4 for 1970 may be misleading with respect to percent unemployment of Architects, shown at a fairly low level of 1.4%, if compared with the annualized monthly coverages for 1971 - 1975; and similarly too high for Actors, Dancers, and Musicians and Composers. The data presented for years 1971 through 1975 is based on an annualized monthly average and is not revealing of seasonal variations of employment.

Virtually no research has been done on the subject of seasonality in unemployment in the artistic occupations. This topic should be part of a broad series of studies to acquire a far better understanding of the characteristics of employment in the artistic occupations.

B. Shifts in Employment Status. A general problem in the measurement of employment and unemployment is that the characteristics and conditions of the work force are not static but are constantly changing in many ways. Of particular importance in the artistic occupations are multiple employment, sometimes referred to as "moonlighting," and movements between classifications in which employment and

unemployment are measured. Unfortunately, however, very little information is available for analysis. Part of the lore of artistic occupations such as Musicians and Composers, Painters and Sculptors, and Writers, is that many individuals derive their principal income from non-artistic occupations. No measure of this condition is presently available. In addition, it is believed that many persons in artistic occupations frequently shift status or maintain a dual status between working for wages and self-employment. For example, a Musician working for wages may also be a self-employed music teacher and Painters and Sculptors, and Writers, may work at home or in studios as self-employed individuals without deriving income for their work for long intervals of time. The distinction between an unemployed artist and a self-employed artist without income is largely a personal self-view. Table 10 shows the numbers of persons in artistic occupations working for wages or self-employed in 1970, while Table 11 shows self-employment as a percent of the artistic occupation labor force. Figure 2 diagrams the relationships between the several possible categories of employed and unemployed individuals in the artist labor force. In addition, a very large group of individuals are to be found in a group not employed or currently seeking employment that are therefore excluded from the labor force total. This includes individuals who are keeping house, at school, ill, or retired. There are undoubtedly substantial shifts between such individuals and those who are working for wages, self-employed, and unemployed. Table 12 shows the numbers of persons who last worked in artistic occupations but were not counted in the labor force in 1970, while Table 13 shows the persons not counted in the labor force as a percent of the labor force. This group exceeded 100,000 individuals or about 1/8th as large as the artist labor force in 1970.

Full understanding of the importance of shifts of status to the measurement of employment and unemployment of artists is not possible with currently available information. Substantial additional research is required as part of a broad program to improve understanding of the artistic occupations.

TABLE 10

Class of Worker of Employed Persons by Detailed Occupation and Sex: 1970

	Total	Wage and salary workers						Self-employed workers	Unpaid family workers
		Private wage and salary workers		Government workers					
		Total	Employee of own corporation	Total	Federal	State	Local		
United States									
Male, 16 years old and over									
Architects	47 730 661	35 975 960	970 970	6 711 592	2 190 565	1 617 482	2 903 345	4 918 213	124 896
Teachers, college and university	54 194	30 740	3 404	6 717	3 477	1 760	1 480	16 716	21
Art, drama, and music	352 429	117 971	7 051	234 458	3 861	201 041	29 556		
Writers, artists, and entertainers	19 859	7 051		12 808	81	10 697	2 030		
Actors	531 785	396 625	13 776	47 090	20 568	17 108	9 414	86 782	1 308
Athletes and kindred workers	5 567	4 527	80	349	66	131	150	6 941	190
Authors	36 115	24 027	784	4 951	397	1 775	2 779	6 947	102
Dancers	17 322	9 739	247	1 836	1 510	267	59	5 645	41
Designers	1 005	943		21					
Editors and reporters	83 227	72 691	3 275	3 797	1 583	1 681	533	6 873	66
Musicians and composers	89 068	76 545	1 836	7 613	4 289	2 676	648	4 695	155
Painters and sculptors	58 528	39 612	1 107	1 524	268	533	723	17 175	217
Photographers	63 934	42 782	1 969	4 020	2 353	1 017	650	18 968	164
Public relations men and publicity writers	55 147	32 844	2 015	7 966	4 191	2 765	1 010	14 281	56
Radio and television announcers	54 618	44 219	1 476	7 812	2 470	3 471	1 871	2 573	84
Writers, artists, and entertainers, n.e.c.	70 361	19 194	126	949	324	440	185	218	274
	42 933	29 707	861	6 252	3 115	2 331	806	8 705	
Females, 16 years old and over									
Architects	29 074 510	27 016 704	148 915	5 676 267	1 087 794	1 431 626	3 156 847	1 088 672	291 467
Teachers, college and university	2 090	1 339	79	176	64	60	52	526	49
Art, drama, and music	139 278	49 620		69 658	2 141	70 724	16 793		
Writers, artists, and entertainers	10 526	4 497		6 029	74	4 837	1 118		
Actors	229 309	171 000	2 928	21 076	7 367	7 524	6 185	35 360	1 873
Athletes and kindred workers	3 855	3 066	96	486	110	230	146	262	21
Authors	14 051	9 715	274	2 273	99	274	1 900	1 832	231
Dancers	7 611	2 947	274	979	539	334	106	3 524	161
Designers	4 901	4 552		60	24	36		289	
Editors and reporters	25 603	20 524	718	611	147	298	166	4 275	193
Musicians and composers	59 104	50 437	409	6 039	3 379	2 267	443	4 445	183
Painters and sculptors	31 496	25 372	107	1 768	226	538	1 004	4 298	58
Photographers	37 459	22 336	625	2 771	805	1 354	612	11 903	449
Public relations men and publicity writers	8 803	5 681	186	777	367	377	83	2 083	262
Radio and television announcers	19 229	15 072	329	3 160	875	1 088	1 197	851	146
Writers, artists, and entertainers, n.e.c.	1 344	1 130		105		87	18	109	
	15 853	10 148	184	2 047	846	691	510	3 489	169

Source: Table 51, Bureau of the Census, Census of Population: 1970 Subject Reports, Final Report PC(2)-7A, Occupational Characteristics.

TABLE 11

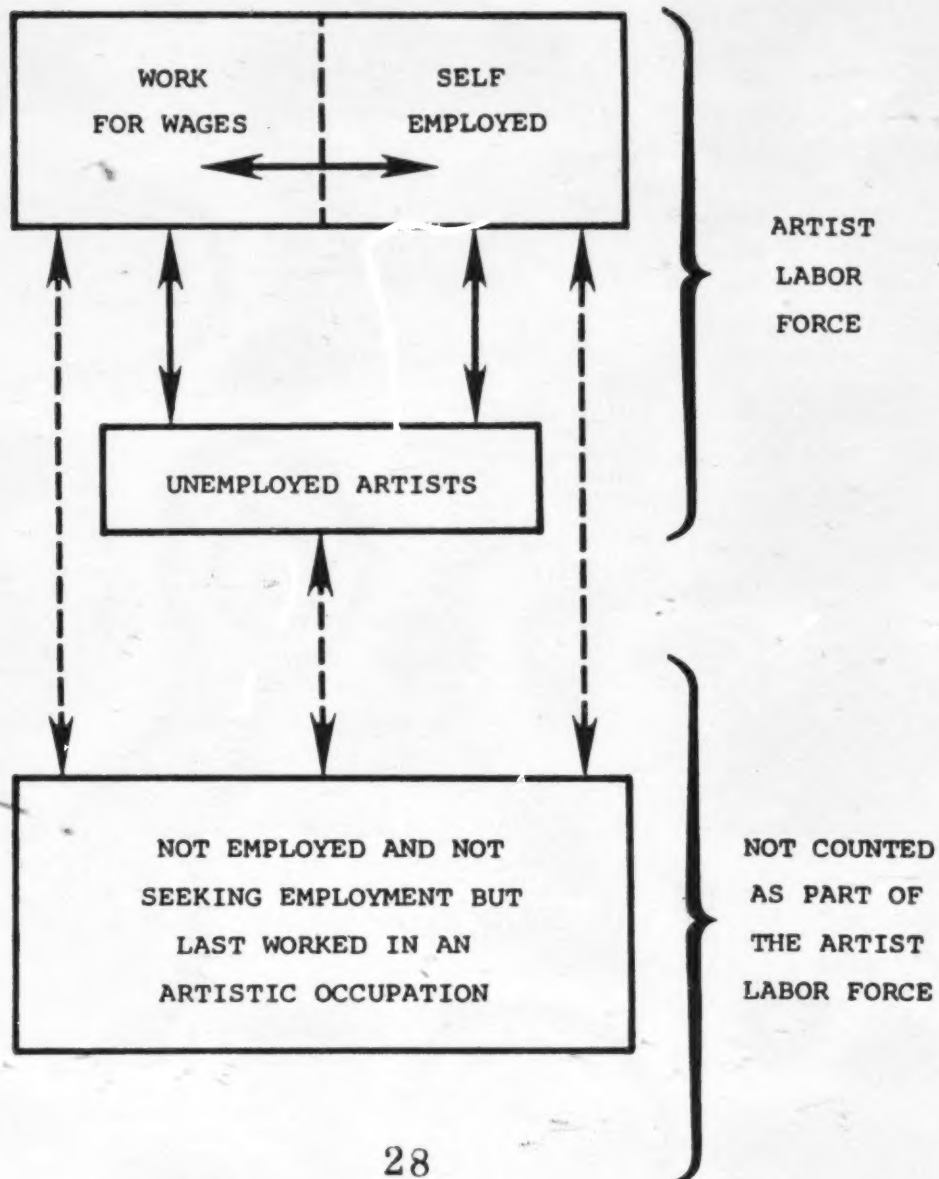
SELF-EMPLOYMENT AS A PERCENT OF SELECTED
ARTISTIC OCCUPATIONS LABOR FORCE: 1970

Architects	30.8%
Actors	12.4%
Authors	22.5%
Dancers	4.1%
Designers	8.3%
Musicians & Composers	29.3%
Painters & Sculptors	28.7%
Photographers	45.8%

Source: Table 10

FIGURE 2

DIAGRAM OF POSSIBLE SHIFTS
IN LABOR FORCE STATUS WITHIN
THE ARTISTIC OCCUPATIONS



Employed, Experienced Unemployed, Not in Labor Force, But Worked 1960 to 1970, by Detailed Occupation and Sex: 1970

Source: Table 51, Bureau of the Census, Census of Population, Reports, Final Report PC(2)-7A, Occupational Characteristics.

TABLE 13

PERSONS NOT IN LABOR FORCE BUT LAST
WORKED IN ARTISTIC OCCUPATIONS 1960
TO 1970, AS A PERCENT OF SELECTED
ARTISTIC OCCUPATION LABOR FORCE: 1970

Architects	10.0%
Actors	63.3%
Authors	21.2%
Dancers	74.2%
Designers	16.5%
Musicians & Composers	28.5%
Painters & Sculptors	22.2%
Photographers	17.0%

Source: Table 51, U.S. Bureau of the
Census, Census of Population: 1970 Sub-
ject Reports, Final Report PC(2)-7A,
Occupational Characteristics.

C. Data Frequency. The best data available at the present time for the study of employment and unemployment of artists are from the decennial censuses conducted by the Bureau of the Census. This data is fairly detailed and makes possible the study of many aspects of the employment and unemployment of artists. However, the ten year interval is so great that comparisons from census to census are a coarse measure of change. Within the ten year interval, the annualized monthly averages data available from the Bureau of Labor Statistics provides some interesting information that is helpful in understanding gross trends in employment and unemployment for the aggregate group of Writers, Artists, and Entertainers and selected occupational classifications. This data, however, is less accurate because of the sample size and many of the detailed data elements of the decennial census are not included.

A change of the census period from the ten year interval to a five year interval beginning with 1985 is now proposed in the Authorization Bill for the 1980 Census. This change would provide a significant improvement in the data available for the study of the artistic occupations.